INVENTORY MANAGEMENT SYSTEM FOR RETAILERS

LITERATURE SURVEY

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INTRODUCTION:

The emergence of the internet has been the greatest technological advancement after the industrial age. From the recent studies on internet penetration and usage in India it has been concluded that many Indians are using the internet to pay bills, purchase products online apart from regular surfing, checking e-mail and socializing on multiple social networks. The number is expected to grow from time as the internet becomes more pervasive and secure. The rise of the internet has created opportunities for entrepreneurs, and has changed the business landscape of e-commerce.

Managing inventory to create higher inventory turnover and just in time delivery practices is one of the most important processes for online retailers. Flexible systems that respond to customer demand and inventory uncertainties are most important in e-commerce.

LITERATURE SURVEY:

S.No	TITLE	AUTHOR	ABSTRACTION	CITE
1.	Demand seasonality in retail inventory management	J.C.F.Ehrenthala, D.Honhonb, T.Van Woensel	We investigate the value of accounting for demand seasonality in inventory control. Our problem is motivated by discussions with retailers who admitted to not taking perceived seasonality patterns into account in their replenishment systems. We consider a single-location, single-item periodic review lost sales inventory problem with seasonal demand in a retail environment. Customer demand has seasonality with a known season length, the lead time is shorter than the review period and orders are placed as multiples of a fixed batch size. The cost structure comprises of a fixed cost per order, a cost per batch, and a unit variable cost to model retail handling costs.	Ehrenthal, J. C. F., Dorothée Honhon, and Tom Van Woensel. "Demand seasonality in retail inventory management." European Journal of Operational Research 238.2 (2014): 527539.

2.	Design of smart inventory management system for construction sector based on IoT and cloud computing	RajeshBose, Haraprasad Mondal, IndranilSarkar, SandipRoy	Monitoring and managing consumption of raw materials and goods in any manufacturing industry is considered a vital activity to operational sustainability and profitability. Given the current state of global competition, manufacturing industries are almost always on the lookout for an inventory management system that would help curtail costs and reduce time required to supply raw materials and goods to carry out production quickly and efficiently. It is, therefore, of paramount importance that continuous improvements are carried out on existing inventory management designs to stay relevant.	Bose, R., Mondal, H., Sarkar, I., & Roy, S. (2022). Design of smart inventory management system for construction sector based on IoT and cloud computing. *e-Prime-Advance s in Electrical Engineering, Electronics and Energy*, *2*, 100051.

3.	Inventory Management of Perishable Goods with Overconfident Retailers	Dragan Pamucar, Dragan Marinkovic and SamarjitKar	In recent years, many retailers sell their products through not only offline but also online platforms. The sales of perishable goods on e-commerce platforms recorded phenomenal growth in 2020. However, some retailers are overconfident and order more products than the optimal ordering quantity, resulting in great losses due to product decay. In this paper, we apply the newsvendor model to analyze the impacts of overconfident behavior on the retailer's optimal pricing and order quantity decisions and profit. Our model provides the overconfident retailer with	Zhang, Mingyang, et al. "Inventory Management of Perishable Goods with Overconfident Retailers." Mathematics 10.10 (2022): 1716.
			a feasible and effective method to adjust optimal ordering and pricing decisions. Through numerical studies, we examine the retailer's optimal decisions under the scenarios of complete rationality, over-estimation, and over-precision.	

4.	Inventory Management Challenges for B2C Ecommerce Retailers	Harish Patil, Rajiv Divekar	This research was conducted on B2C ecommerce companies or online retailers to study the challenges involved such as demand variations, reverse logistics, seasonal fluctuations, and stockless policy in inventory management and the risks such as lost sales, lost customers, low customer satisfaction associated with the same. This study also includes various strategies to mitigate the risk associated with inventory management of online retailers.	Patil, Harish, and Brig Rajiv Divekar. "Inventory management challenges for B2C ecommerce retailers." Procedia Economics and Finance 11 (2014): 561571.
5.	Inventory Management and Its Effects on Customer Satisfaction	Scott Grant Eckert	This study examines inventory management and the role it plays in improving customer satisfaction. It looks at how food companies have been under pressure to streamline their inventory systems, and the consequences of such actions. It also examines how many retailers are	Eckert, Scott Grant. "Inventory management and its effects on customer satisfaction." Journal of Business and public Policy

			trying to implement a "perfect order" system and how suppliers are constantly under pressure to meet the demands of these retailers. Many food companies are, therefore, looking at various inventory management systems as they belief this will have a positive effect on the satisfaction of their customers. The paper also outlines the methodology used in the research and concludes by pointing out the limitations of the research as well a suggestion for further research.	1.3 (2007): 113.